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SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/719,820	<b>Applicant(s)</b> RUSSELL ET AL.	
	<b>Examiner</b> Helene Rose	<b>Art Unit</b> 2163	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12, 14-16 and 18-24 is/are pending in the application.  
     4a) Of the above claim(s) 13 and 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-16 and 18-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>November 21, 2003</u> . | 6) <input type="checkbox"/> Other: _____  |

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### Detailed Action

1. In response to communication entered on 1/16/2007, Claims 5, 12, 15, and 19 were amended. Claims 13 and 17 were cancelled. Claims 23 and 24 were added. Therefore, Claims 1-12, 14-16, and 18-24 is pending.
2. Applicants arguments with respect to claims 1-24 have been considered, but are not persuasive.

### Information Disclosure Statement

3. The information disclosure statement filed 11/21/2003 is objected because “JP 10065159” and “903873” does not indicate on the Information Disclosure Statement form “what is to be considered”, whether it’s the abstract or full text document, wherein this should be cited within column 4 of the IDS. In this case, the Examiner has objected to these two foreign documents because it fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed.

In reference to the US Patents and the Non-Patent Literature cited on the Information Disclosure Statement, Examiner is considering documents as well as the Foreign Patent document “GB 2227106A” because it provides a full translation of the abstract and full text document. It has been placed in the application file, but the information referred to therein has not been considered.

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### Claim Objections

4. In view of the Claims 11 and 20 being objected to because claims 11 and 20 having parentheses within claims. **Examiner withdraws the pending objection.**

### Claim Rejections – 35 U.S.C – 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-12, 14-16, and 18-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Vishnubhotla (US Patent No. 6,799,181, Filing Date: June 20, 2003).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

#### Claim 1:

Regarding Claim 1, Vishnubhotla teaches a computerized method of generating a data mining tool, the method comprising:

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obtaining objectives for the data-mining model (column 15, lines 19-25, wherein the verification phase to determine whether the desire accuracy and error limit objectives for the model under development have been met, and when these goals are met, the training process proceeds, Vishnubhotla);

automatically selecting a set of algorithms based on objectives for the data-mining model (column 4, lines 13-15, wherein selects data mining algorithms useful for solving the identified problems; column 8, lines 20-22, wherein encoding of mining model training results using one or more mathematical concepts such as rules, Vishnubhotla);

obtaining sample data (column 1, lines 39-43, Vishnubhotla);

creating a plurality of datasets from sample data (column 10, lines 13-17, wherein create data schema or record structures, Vishnubhotla);

optimizing the set of algorithms using the plurality of datasets (Figure 3, wherein column 14, lines 61-63, wherein the input data parameters include input data, i.e. diagram 306 and optimize mining run for, i.e. diagram 308, Vishnubhotla); and

generating the data mining model based on the optimized set of algorithms (Figure 3, wherein column 14, lines 61-63, wherein the input data parameters include input data, i.e. diagram 306 and optimize mining run for, i.e. diagram 308, Vishnubhotla), wherein the data mining model mines data when executed (column 23, lines 38-47, wherein Idmmbruns when so executed causes the data mining tools to find the mining base name commerce\_mb, the data mining model named "Shopper scoring setting" and execute the found data mining scoring data through the trained model, wherein the data mining model itself identifies the data store containing the populated data schema having the production data for use in production training, wherein the data mining model itself contains

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the defining parameters, Vishnubhotla).

**Claims 2 and 22:**

Regarding claims 2 and 22, Vishnubhotla teaches wherein the program code for generating the plurality of datasets includes:

program code for shuffling the sample data (column 20, lines 65-67, wherein the data mining model parameters are adjusted until the most accurate prediction is produced, Vishnubhotla);

program code for placing the shuffled sample data into a plurality of partitions (Figure 4, diagram 400, Vishnubhotla); and

program code for including each partition in one of the plurality of datasets (Figure 4, diagram 400, Vishnubhotla).

**Claim 3:**

Regarding claim 3, Vishnubhotla teaches wherein the plurality of datasets includes a training dataset, a validation dataset, and a testing dataset (column 12, lines 18-26, wherein training and testing for the purpose of identifying data mining model; column 15, lines 17-19, wherein verification phase is equivalent to validation, Vishnubhotla).

**Claim 4:**

Regarding claim 4, Vishnubhotla teaches wherein the creating step further includes repeating the including step until each partition is included in at least one training dataset (column 21, lines 24-28, wherein repeating production training tunes the installed data mining model for best performance with a particular end user's actual production data as the nature of the production data changes over time, Vishnubhotla).

**Claim 5:**

Regarding claim 5, Vishnubhotla teaches wherein the selecting step includes obtaining a rule that comprises a best practice for an objective, **the best practice defining at least one of :**

**an algorithm or a tuning parameter for an algorithm** (column 14, lines 28-31, wherein radical basis function algorithm weighs sum of values producing the best predictions are determined by the algorithm at each filtering center and column 21, lines 24-28, wherein periodically repeating production training tunes the installed data mining model for the best performance, which is interpreted to be “best practice”, with a particular end users actual production data as the nature of the production data changes over time, wherein repeating production training tunes, is interpreted to be the “rules”, and wherein this is interpreted to be equivalent to “best practice for an objective, let alone obtaining such a rule”, Vishnubhotla).

**Claim 6:**

Regarding claim 6, Vishnubhotla teaches wherein the best practice is based on at least one of: research, data characteristics, and user feedback (column 13, lines 58-67, Vishnubhotla).

**Claim 7:**

Regarding claim 7, Vishnubhotla teaches wherein the selecting step includes analyzing an attribute of the sample data, and wherein the set of algorithms is further selected based on the attribute (column 2, lines 1-5, wherein historical data, or samples of historical data are analyzed and finding are output back to the production system to help improve operation; column 4, lines 13-15, wherein selects data minding algorithms useful for

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solving the identified problems; column 8, lines 20-22, wherein encoding of mining model training results using one or more mathematical concepts such as rules, Vishnubhotla).

**Claim 8:**

Regarding claim 8, Vishnubhotla teaches wherein the optimizing step includes:

applying the set of algorithms to the plurality of datasets (column 3, lines 37-39, wherein applying the trained data mining model by executing the data mining algorithm in production scoring mode, wherein the data mining algorithm executed in production scoring mode comprises a software process with the analytic application, wherein executing the data mining algorithm typically has an output comprising production scored data, Vishnubhotla); and

analyzing a set of results for the applying step (column 2, lines 1-5, wherein historical data, or samples of historical data are analyzed and finding are output back to the production system to help improve operation, Vishnubhotla).

**Claim 9:**

Regarding claim 9, Vishnubhotla teaches wherein the optimizing step further includes:

adjusting at least one algorithm based on the set of results (column 20, lines 60-67, wherein data mining model parameters are adjusted, Vishnubhotla); and

applying the adjusted set of algorithms to the plurality of datasets (column 20, lines 60-67, wherein data mining model parameters are adjusted until the most accurate prediction is produced, Vishnubhotla).



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**Claims 10 and 21:**

Regarding claims 10 and 21, Vishnubhotla teaches wherein the program code for generating the data mining model includes program code for **translating the optimized set of algorithms into a set of standard query language (SQL) statements, and including the set of SQL statements in the data mining model** (column 10, lines 13-14 and lines 26-35, wherein create table shopper is an SQL statement; column 18, line 44, wherein create table mining shopper is a SQL statement, Vishnubhotla).

**Claims 11 and 20:**

Regarding claims 11 and 20, Vishnubhotla teaches program code for storing the data mining model as a character large object (CLOB) in a database (column 2, lines 5-7, wherein the quantities of data to be analyzed are large; column 17, lines 48-55, wherein new input data comprising typically large quantities of end user production data; column 15, lines 26-40, wherein maximum numbers, which is equivalent to CLOB, which is defined to be a term for a large file of characters stored as part of a database record, Vishnubhotla).

**Claim 12:**

Regarding claim 12, Vishnubhotla teaches a computerized method of generating a data mining model, the method comprising:

obtaining a set of algorithms (Figure 1, diagram 108, wherein decide on mining algorithm and wherein column 7, lines 32-33, identifies a mining algorithm useful in solving the at least one identified business problem; column 1, lines 59-67; column 8, lines 15-24; column 14, lines 28-41, Vishnubhotla);

**automatically generating a plurality of datasets from sample data** (see abstract, wherein automated mining using domain-specific analytic applications for solving predefined

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problems, including populating input data schema, the input schema, the input schema having a format appropriate to solution of a predefined problem, Vishnubhotla);

applying the set of algorithms to the plurality of datasets (column 3, lines 37-39, wherein applying the trained data mining model by executing the data mining algorithm in production scoring mode, wherein the data mining algorithm executed in production scoring mode comprises a software process with the analytic application, wherein executing the data mining algorithm typically has an output comprising production scored data, Vishnubhotla);

analyzing a set of results for the applying step (column 2, lines 1-5, wherein historical data, or samples of historical data are analyzed and finding are output back to the production system to help improve operation, Vishnubhotla);

adjusting at least one algorithm based on the set of results (column 20, lines 60-67, wherein data mining model parameters are adjusted, Vishnubhotla);

applying the adjusted set of algorithms to the plurality of datasets (column 20, lines 60-67, wherein data mining model parameters are adjusted until the most accurate prediction is produced, Vishnubhotla); and

generating the data-mining model based on the adjusted set of algorithms, wherein the data-mining model includes a set of SQL statements (column 10, lines 13-14 and lines 26-35, wherein create table shopper is an SQL statement; column 18, line 44, wherein create table mining shopper is a SQL statement, Vishnubhotla).

**Claim 14:**

Regarding claim 14, Vishnubhotla teaches wherein the obtaining step includes: obtaining objectives for the data mining model (column 6, lines 12-24, wherein a useful key to simplifying the use of data mining in analytic applications is to make the analytic

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application domain-specific, and wherein domain" refers to a problem subject area, and "domain-specific" means that an analytic application is designed to operate on the basis of data related to a particular problem subject area, where the data has specific defined data elements with defined relations among the data elements, wherein for example, e-commerce is a specific domain, and a domain-specific analytic application for e-commerce would accept and analyze only e-commerce data and wherein for illustration purposes in this specification, e-commerce is chosen as the domain of interest, Vishnubhotla); and

automatically selecting the set of algorithms based on the objectives (Figure 1, all features, illustrates automatic data mining; column 4, lines 13-15, wherein selects data mining algorithms useful for solving the identified problems; column 8, lines 20-22, wherein encoding of mining model training results using one or more mathematical concepts such as rules, Vishnubhotla).

**Claim 15:**

Regarding claim 15, Vishnubhotla in view of Campos teaches a system for generating a data mining model, the system comprising:

a dataset system for **automatically generating a plurality of datasets** (Figure 4, all features illustrates a plurality of datasets, wherein datasets are defined to be a result of data, and see abstract, wherein automated mining using domain-specific analytic applications for solving predefined problems, including populating input data schema, the input schema, the input schema having a format appropriate to solution of a predefined problem, Vishnubhotla);

a rules system for obtaining a plurality of algorithms (Refer to claim 12, wherein this limitation has already been addressed, Vishnubhotla)

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an optimization system for optimizing the set of algorithms using the plurality of datasets (Figure 3, wherein column 14, lines 61-63, wherein the input data parameters include input data, i.e. diagram 306 and **optimize mining run for, i.e. diagram 308, Vishnubhotla**); and

a model system for generating the data-mining model based on the optimized set of algorithms, wherein the data-mining model includes a set of SQL statements (column 10, lines 13-14 and lines 26-35, wherein create table shopper is an SQL statement; column 18, line 44, wherein create table mining shopper is a SQL statement, Vishnubhotla).

**Claim 16:**

Regarding claim 16, Vishnubhotla teaches a storage system for storing the data-mining model in a database (column 6, lines 9-11, wherein data stores or databases comprised of data files which in turn comprised of records which in turn are comprised of data elements or fields, Vishnubhotla).

**Claim 18:**

Regarding claim 18, Vishnubhotla teaches wherein the rules system automatically selects the set of algorithms based on objectives for the data-mining model (column 4, lines 13-15, wherein selects data mining algorithms useful for solving the identified problems; column 8, lines 20-22, wherein encoding of mining model training results using one or more mathematical concepts such as rules, Vishnubhotla).

**Claim 19:**

Regarding claim 19, Vishnubhotla teaches a program product stored on a recordable medium for **automatically** generating a data mining model, which when executed comprises:

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program code for generating a plurality of datasets from sample data (column 17, lines 65-67, wherein any software application capable of beginning execution of a computer program in accordance with a stored, predefined schedule; column 18, lines 20-25, wherein scripts operating at the level of an operating system and compiled programs capable of calling API functions in APIs associated with particular database management systems; column 21, lines 43-48, wherein data mining tools typically provide program application programming interfaces; column 17, lines 59-60, wherein method includes populating data schema with sample historical data; column 22, lines 6-9, wherein the data mining definition itself identifies the data store containing the populated data schema having the sample historical data for use in production training, Vishnubhotla);

program code for selecting a set of algorithms based on objectives for the data-mining model (column 4, lines 13-15, wherein selects data mining algorithms useful for solving the identified problems; column 8, lines 20-22, wherein encoding of mining model training results using one or more mathematical concepts such as rules, Vishnubhotla);

program code for optimizing the set of algorithms using the plurality of datasets (Figure 3, wherein column 14, lines 61-63, wherein the input data parameters include input data, i.e. diagram 306 and optimize mining run for, i.e. diagram 308, Vishnubhotla); and

program code for generating the data-mining model based on the optimized set of algorithms (Figure 3, wherein column 14, lines 61-63, wherein the input data parameters include input data, i.e. diagram 306 and optimize mining run for, i.e. diagram 308, Vishnubhotla), **wherein the data mining model mines data when executed** (column 23, lines 38-47, wherein Idmmbruns when so executed causes the data mining tools to find the mining base name commerce\_mb, the data mining model named "Shopper scoring setting"

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and execute the found data mining scoring data through the trained model, wherein the data mining model itself identifies the data store containing the populated data schema having the production data for use in production training, wherein the data mining model itself contains the defining parameters, Vishnubhotla).

**Claim 23:**

Regarding Claim 23, Vishnubhotla teaches wherein the automatically generating includes:

resorting a plurality of entries in the sample data (Refer to claim 2, wherein this limitation is substantially the same/or similar and therefore rejected under the same grounds, Vishnubhotla);

placing each of the plurality of entries into one of a plurality of partitions (Refer to claim 2, wherein this limitation is substantially the same/or similar and therefore rejected under the same grounds, Vishnubhotla); and

creating the plurality of datasets based on the plurality of partitions (column 11, lines 58-61, wherein the value prediction algorithm builds a data mining model, wherein builds is interpreted to be “creating” and wherein data mining is interpreted to be the process of analyzing data to identify patterns or relationships, based on a subset of the selected input data, that is a subset of the historical data, wherein subset is interpreted to be a set that is part of another larger set, which is interpreted to be the plurality of partitions, and therefore interpreted to be equivalent to “creating the plurality of datasets based on the plurality of partitions”, Vishnubhotla), each dataset including at least one of the plurality of partitions (Refer to claim 2, wherein this limitation is substantially the same and therefore rejected under the same grounds, Vishnubhotla).

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**Claim 24:**

Regarding Claim 24, Vishnubhotla teaches wherein the rules system obtains a rule that comprises a best practice for an objective, the best practice defining at least one of: an algorithm or a tuning parameter for an algorithm (Refer to claim 5, wherein this limitation is substantially the same/or similar and therefore rejected under the same grounds, Vishnubhotla).

**Examiner Response to Applicant Arguments****(7) Applicant States/Argues:**

In the Office Action, the Office rejects claims 1-22 under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent No. 6,799,181 (Vishnubhotla). In order to present a prima facie rejection under 35 U.S.C. § 102(e), the Office must show that Vishnubhotla discloses each and every feature of the claimed invention. Since the Office fails to present such a prima facie case, Applicants respectfully request withdrawal of the rejections.

**CLAIM 1**

With respect to claim 1, the Office fails to show, inter alia, the claimed automatically selecting a set of algorithms based on objectives for a data mining model. In support of the rejection, the Office cites Vishnubhotla, col. 4, lines 13-15, and states "wherein selects data minding [sic] algorithms useful for solving the identified problems". Office Action, p. 4. However, Applicants note that the entire sentence cited by the Office reads, "It] he analytic application developer then selects data mining algorithms useful for solving the identified problems and defines data schema useful as inputs to the selected mining algorithms." Vishnubhotla, col. 4, lines 12-15. As clearly stated by the sentence cited by the Office, the selection of data mining algorithms is not performed automatically. Rather, the selection is

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manually performed by an analytic application developer. In sharp contrast, the claimed invention provides a computerized method of generating a data-mining model in which a set of algorithms is automatically selected based on objectives for the data-mining model.

With further respect to claim 1, the Office fails to show, inter alia, the claimed creating a plurality of datasets from sample data. In support of the rejection, the Office cites col. 10, lines 13-17 of Vishnubhotla and states, "wherein create data schema or record structures".

Office Action, p. 4. As best understood by Applicants, the Office apparently alleges that data schema or record structures are the same as the claimed plurality of datasets. However, Applicants note that as is well understood in the art, a data schema or record structure merely defines a structure for storing data. In sharp contrast, each of the claimed datasets includes data from the sample data. **Additionally, while Vishnubhotla discusses the use of a subset of historical data, see, e.g., Vishnubhotla, col. 11, line 58-col. 12, line 12, it fails to disclose the claimed creating a plurality of datasets from sample data.**

Examiner Response:

Examiner is not persuaded. SEE Vishnubhotla – column 10, lines 13-17, wherein the industry standard SQL Data Definition Language (DDL) is often used to create data schema or record structures for inclusion in data stores or files; column 6, lines 60-61, wherein analytic application developers create the analytic application that end users use, and column 1, lines 39-43, wherein an analytic application is a software application that inputs historical data collected from a production system overtime, analyzes the historical data or samples of the historical data and outputs the findings back to the production system to help improve its operation, and wherein this is interpreted to be equivalent to “creating a plurality of datasets from sample data”.



(8) Applicant States/Argues:

With further respect to claim 1, the Office fails to show, inter alia, the claimed optimizing the set of algorithms using the plurality of datasets. In support of the rejection, the Office cites Fig. 3 and col. 14, lines 61-63 of Vishnubhotla and states "wherein the input data parameters include input data, i.e. diagram 306 and optimize mining [sic] run for, i.e. diagram 308". As best understood by Applicants, the Office apparently alleges that a data mining model definition that includes both "input data" and "optimize mining run for" parameters discloses the claimed optimizing the set of algorithms using the plurality of datasets. However, **Applicants note that Vishnubhotla fails to disclose the use of a plurality of datasets in performing any sort of optimization.** Rather, the "input data" parameter merely "indicates the data file from which historical data is to be read for training the model." Vishnubhotla, col. 14, lines 63-66.

Examiner Response:

Examiner is not persuaded. Referring to columns 14 and 15, lines 60-67 and lines 1-10, wherein a data mining model definition are seen and the input data parameters include "Input Data" and "Optimize mining run for" and the input data is set to "Shopper data," indicating the data file from which historical data is to be read for training the model, wherein the "Optimize mining run for" element is set to "Time," indicating that built-in optimization functionality in the data mining product in use in the example is to be administered automatically in favor of speedy operation, and wherein the mode parameters in the model definition include "Use mode, "In-sample size", "Out-sample size", "Maximum number of passes", "Maximum centers", "Minimum region size", and "Minimum passes, wherein optimization is interpreted to improve the speed of a program or to reduce the use

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of a storage during processing, and wherein data mining is interpreted to be the process of analyzing data to identify patterns or relationships, which is interpreted to be equivalent to “data sets”, and wherein overall this is interpreted to be equivalent to “plurality of datasets in performing any sort of optimization”.

(9) Applicant States/Argues:

In light of each of the above-stated reasons, either alone or in combination, Applicants respectfully request withdrawal of the rejection of claim 1 and claims 2-11, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

CLAIM 2

With further respect to claim 2, the Office fails to show that Vishnubhotla discloses any of the claimed processes. For example, the Office alleges that col. 20, lines 65-67 of Vishnubhotla disclose the claimed shuffling the sample data. However, Applicants note that this portion of Vishnubhotla discusses adjusting data mining model parameters. These parameters are entirely distinct from any type of sample data. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office further clarify how adjusting parameters of a data-mining model discloses shuffling sample data. Similarly, the Office cites Fig. 4 of Vishnubhotla as allegedly disclosing the claimed placing the shuffled sample data into a plurality of partitions; and including each partition in one of the plurality of datasets. However, Fig. 4 merely shows an example of historical data. Additionally, the discussion from Vishnubhotla, col. 18, line 7-col. 20, line 36 does not discuss a plurality of partitions or including each such partition in one of a plurality of datasets. As a result, this portion of Vishnubhotla appears to be entirely unrelated to the claimed processes. Should the Office maintain this interpretation of Vishnubhotla,

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Applicants respectfully request that the Office further clarify how Fig. 4 discloses placing the shuffled sample data into a plurality of partitions; and including each partition in one of the plurality of datasets as in the claimed invention. In light of each of the above-stated reasons, either alone or in combination, Applicants again respectfully request withdrawal of the rejection of claim 2 and claims 3-4, which depend therefrom, as allegedly being anticipated by Vishnubhotla.

Examiner Response:

In response to applicant request wherein “Applicants respectfully request that the Office further clarify how Fig. 4 discloses placing the shuffled sample data into a plurality of partitions; and including each partition in one of the plurality of datasets as in the claimed invention”, Figure 4, all features, is interpreted to be equivalent to “placing the shuffled sample data into a plurality of partitions, and including each partition in one of the plurality of datasets”, wherein columns 17-18, under the title populating input data schema with historical data or production data – defines wherein populating input data schema with historical data, that is extracting data from a repository of historical data and writing the data into the input data schema, and so forth, and wherein the term “input” is interpreted to be “shuffling”, wherein shuffling is defined to be moving or placing, which is equivalent to an “input”, and wherein Figure 4, is a data schema, wherein a schema is defined to be a set objects such as indexes, tables, and etc, and the schema includes data, and therefore interpreted to be equivalent to “placing the shuffled sample data into a plurality of partitions; and including each partition in one of the plurality of datasets”.

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(10) Applicant States/Argues:CLAIM 5

With further respect to claim 5, the Office fails to show that Vishnubhotla discloses that automatically selecting a set of algorithms includes obtaining a rule that comprises a best practice for an objective as in the claimed invention. In support of the rejection, the Office cites Vishnubhotla, col. 13, lines 46-48 and states "wherein the radial basis function algorithm is a data mining algorithm practically designed for value prediction as such as opposed to data classification or pattern matching". Office Action, p. 6. However, Applicants note that the cited portion of Vishnubhotla and Vishnubhotla in general, is silent with respect to a rule that comprises a best practice for an objective, let alone obtaining such a rule as in the claimed invention. As a result, Applicants again respectfully request withdrawal of the rejection of claim 5 and claim 6, which depends therefrom, as allegedly being anticipated by Vishnubhotla. However, should the Office maintain its interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla discloses the claimed rule.

Examiner Response:

Examiner is not persuaded. Applicant argues prior is silent with respect to a rule that comprises a best practice for an objective, let alone obtaining such a rule as in the claimed invention. Again, Examiner disagrees – SEE column 14, lines 28-31, wherein radial basis function algorithm weighs sum of values producing the best predictions are determined by the algorithm at each filtering center and column 21, lines 24-28, wherein periodically repeating production training tunes the installed data mining model for the best performance, which is interpreted to be “best practice”, with a particular end users actual

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production data as the nature of the production data changes over time, wherein repeating production training tunes, is interpreted to be the “rules”, and wherein this is interpreted to be equivalent to “best practice for an objective, let alone obtaining such a rule”.

(11) Applicant States/Argues:

CLAIM 12

With respect to claim 12, the Office fails to show, inter alia, that Vishnubhotla discloses applying the set of algorithms to the plurality of datasets as in the claimed invention. In support of the rejection, the Office cites Vishnubhotla, col. 3, lines 37-39. However, this portion of Vishnubhotla is unrelated to applying a set of algorithms to a plurality of datasets. In sharp contrast, this portion of Vishnubhotla discusses production scoring, in which a trained data mining algorithm is executed in a production scoring mode. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed applying the set of algorithms to the plurality of datasets.

Additionally, Applicants have amended claim 12 with a feature originally presented in claim 13. To this extent, with respect to newly presented claim 12, the Office fails to show, inter alia, that Vishnubhotla discloses automatically generating a plurality of datasets from sample data as in the claimed invention. In support of the rejection of claim 13, the Office cites the Abstract of Vishnubhotla and states "wherein automated data mining using domain-specific analytic applications for solving predefined problems". Office Action, p. 10. Applicants note that this portion of Vishnubhotla is entirely unrelated to generating a plurality of datasets from sample data. While Vishnubhotla does discuss the use of test samples of historical data (see, e.g., Vishnubhotla, col. 20, line 60-col. 21, line 4), Vishnubhotla states that these test

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samples are "developed for use by the analytic application developer" (col. 21, line 1), not automatically generated as in the claimed invention. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed automatically generating a plurality of datasets from sample data as in the claimed invention.

In light of each of the above-stated reasons, either alone or in combination, Applicants respectfully request withdrawal of the rejection of claim 12 and claims 14 and 23, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

Examiner Response:

In response to applicant request wherein "Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed automatically generating a plurality of datasets from sample data as in the claimed invention." Again, Examiner is not persuaded. SEE abstract, wherein automated mining using domain-specific analytic applications for solving predefined problems, including populating input data schema, the input schema, the input schema having a format appropriate to solution of a predefined problem, wherein schema is interpreted to be description of data or set of objects such as tables, view, and indexes and wherein data mining is interpreted to be the process of analyzing data to identify patterns or relationships, which is interpreted to be the "datasets", Vishnubhotla.

(12) Applicant States/Argues:

CLAIM 15

Applicants initially note that the Office's rejection cites "Vishnubhotla in view of Campos". Office Action, p. 11. However, the rejection appears to allege that the claimed invention is

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anticipated by Vishnubhotla under 35 U.S.C. § 102(e). As a result, Applicants' response is filed based on this assumption. Applicants respectfully request clarification by the Office if this is not the case.

Applicants have amended claim 15 with a feature originally presented in claim 17. To this extent, with respect to newly presented claim 15, the Office fails to show, inter alia, that Vishnubhotla discloses a dataset system for automatically generating a plurality of datasets from sample data as in the claimed invention. In support of the rejection of claim 17, the Office cites the Abstract of Vishnubhotla. As discussed above with respect to claim 12, Applicants note that this portion of Vishnubhotla is entirely unrelated to generating a plurality of datasets from sample data. While Vishnubhotla does discuss the use of test samples of historical data (see, e.g., Vishnubhotla, col. 20, line 60-col. 21, line 4), Vishnubhotla states that these test samples are "developed for use by the analytic application developer" (col. 21, line 1), not automatically generated as in the claimed invention. Should the Office maintain this interpretation of Vishnubhotla, Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed automatically generating a plurality of datasets from sample data as in the claimed invention.

As a result, Applicants respectfully request withdrawal of the rejection of claim 15 and claims 16, 18, and 24, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

Examiner Response:

In response to applicant request wherein "Applicants respectfully request that the Office clarify how the cited portion of Vishnubhotla allegedly discloses the claimed automatically generating a plurality of datasets from sample data as in the claimed invention." Again,

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Examiner is not persuaded – SEE ABOVE – NO. 11, wherein applicant request has already been addressed.

(13) Applicant States/Argues:

CLAIM 19

With respect to claim 19, the Office fails to show, inter alia, that Vishnubhotla discloses program code for automatically generating a plurality of datasets from sample data as in the claimed invention. In support of the rejection, the Office cites several places of Vishnubhotla that reference software. However, Applicants note that each of these references is entirely unrelated to generating a plurality of datasets from sample data. In particular, in Vishnubhotla, col. 17, lines 65-67 discuss a scheduler; col. 18, lines 20-25 discuss the use of software to populate an input data schema; col. 21, lines 43-48 discuss access to data mining functions; col. 17, lines 59-60 discuss populating data schema with sample historical data; col. 22., lines 6-9 discuss the data mining model definition. None of these citations discuss anything with respect to multiple datasets being generated from sample data. In fact, as discussed above, Vishnubhotla discusses the use of test samples of historical data (see, e.g., Vishnubhotla, col. 20, line 60-col. 21, line 4), but expressly states that these test samples are "developed for use by the analytic application developer" (col. 21, line 1), not with program code as in the claimed invention.

With further respect to claim 19, the Office fails to show, inter alia, that Vishnubhotla discloses program code for automatically selecting a set of algorithms based on objectives for the data mining model. In support of the rejection, the Office cites col. 4, lines 13-15 and states "wherein selects data mining [sic] algorithms useful for solving the identified problems". Office Action, p. 13. However, as discussed above with respect to claim 1,



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Applicants note that the entire sentence cited by the Office reads "[t]he analytic application developer then selects data mining algorithms useful for solving the identified problems and defines data schema useful as inputs to the selected mining algorithms." Vishnubhotla, col. 4, lines 12-15. As clearly stated by the sentence cited by the Office, the selection of data mining algorithms is not performed automatically by program code. Rather, the selection is manually performed by an analytic application developer. In sharp contrast, the claimed invention provides program code for automatically selecting a set of algorithms based on objectives for the data mining model. In light of each of the above-stated reasons, either alone or in combination, Applicants respectfully request withdrawal of the rejection of claim 19 and claims 20-22, which depend therefrom, as allegedly being disclosed by Vishnubhotla.

Examiner Response:

Applicant does not clearly define what the prior art (Vishnubhotla) of record does not teach.

Applicant only states that the Office fails to show or prior art does not discuss.

Examiner states that all arguments in reference to prior art of record, must be clearly specified as to wherein the arguments clearly state and defined, such as: "prior art does not teach or suggest", or does not describe", or "is silent to or silent with respect to", and so forth.

Therefore, applicant statement and remarks regarding the Office fails to show or prior art does not discuss are considered to be "blanket statements", in which the arguments are not clearly conveyed to the examiner.

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**Prior Art of Record**

- |                  |                           |
|------------------|---------------------------|
| 1. Vishnubhotla  | (US Patent No. 6,799,181) |
| 2. Campos        | (US Patent No. 7,092,941) |
| 3. Miller et al. | (US Patent No. 6,687,695) |
| 4. Miller et al  | (US Patent No. 6,553,366) |
| 5. Tate          | (US Patent No. 6,704,717) |
| 6. Tate et al.   | (US Patent No. 6,611,829) |

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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**Point of Contact**

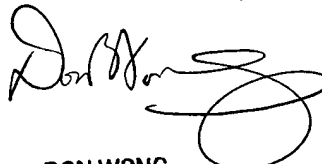
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Rose whose telephone number is (571) 272-0749.

The examiner can normally be reached on 8:00am - 4:30pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HRR  
Technology Center 2100  
March 27, 2007

  
**DON WONG**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**